

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An apparatus for use in an optical network for providing specified communications signals to targeted recipients, said apparatus comprising:

5 a power splitter for splitting an incoming optical signal into a given number of outputs;

one or more cross-connect devices coupled to said power splitter for receiving communication signals on individual communication paths; and

one or more optical multiplexer units having inputs respectively coupled to selected outputs of said cross-connect devices,

10 wherein said cross-connect devices and said optical multiplexer units are controllably operable to dynamically and selectively distribute said communication signals on said individual communications paths to none, some or all inputs of said optical multiplexer units for distribution to said targeted recipients ~~and~~

15 ~~wherein said specified communication signals are contained on various optical wavelengths, one or more selected wavelengths being representative of a target service for said target recipients, and~~

~~further including a power splitter for splitting an incoming optical signal into a given number of outputs,~~

wherein said optical network is a WDM network, further including one or more
 20 optical demultiplexing units respectively coupled between said power splitter and said
 cross-connect devices.

2. (Original) The apparatus of Claim 1, wherein said apparatus is
 placed within a passive optical network.

3. (Cancelled)

4. (Original) The apparatus of Claim 1, wherein said optical network is
 a CATV network.

5. (Original) The apparatus of Claim 1, wherein said network is
 dynamically reconfigurable depending on changing customer needs.

6. (Original) The apparatus of Claim 1, further including a controller
 coupled to cross-connect devices and said optical multiplexers, said controller being
 operable to track connections and signal distribution of said cross-connect devices and
 said optical multiplexer units to thereby determine usage of said specified
 5 communications signal by said targeted recipients.

7. (Original) The apparatus of Claim 1, wherein said cross-connects
 include M inputs and said optical multiplexers include N outputs, said connections
 between said cross-connect devices and said optical multiplexer units being divided
 into M/N groups.

8. (Cancelled)

9. (Cancelled)

10. (Original) The apparatus of Claim 1, wherein multiple ones of said apparatus are hierarchically distributed within said network.

11. (Original) The apparatus of Claim 1, wherein said cross-connect devices are MEMs devices.

12. (Original) The apparatus of Claim 1, wherein an additional one of said apparatus is utilized to direct upstream communications in said network.

13. (Currently Amended) In a CATV distribution network, at least a portion of which includes optical distribution capabilities, an apparatus for dynamically providing selective distribution of specified signals to miniature fiber nodes in said network, said apparatus comprising:

5 a power splitter for splitting an incoming optical signal into a given number of outputs,

 one or more cross-connect devices coupled to said power splitter for receiving said specified communication signals on individual communication paths; and

 one or more optical multiplexer units having inputs respectively coupled to
10 selected outputs of said cross-connect devices,

 wherein said cross-connect devices and said optical multiplexer units are controllably operable to dynamically and selectively distribute said communication signals to inputs of said optical multiplexer units for targeted distribution to said miniature fiber nodes, ~~and~~

15 ~~further including a power splitter for splitting an incoming optical signal into a given number of outputs,~~

~~wherein said optical network is a WDM network, further including one or more optical demultiplexing units respectively coupled between said power splitter and said cross-connect devices.~~

14. (Original) The apparatus of Claim 13, wherein said specified communication signals are contained on various optical wavelengths, one or more selected wavelengths being representative of a target service for said target recipients.

15. (Original) The apparatus of Claim 13, wherein said network is dynamically reconfigurable depending on changing customer needs.

16. (Original) The apparatus of Claim 13, further including a controller coupled to cross-connect devices and said optical multiplexers, said controller being operable to track connections and signal distribution of said cross-connect devices and said optical multiplexer units to thereby determine usage of said specified

5 communications signal by targeted recipients coupled to said miniature fiber node.

17. (Original) The apparatus of Claim 13, wherein said cross-connects include M inputs and said optical multiplexers include N outputs, said connections between said cross-connect devices and said optical multiplexer units being divided into M/N groups.

18. (Cancelled)

19. (Cancelled)

20. (Original) The apparatus of Claim 13, wherein multiple ones of said apparatus are hierarchically distributed within said network.

21. (Currently Amended) In a CATV distribution network, at least a portion of which includes optical distribution capabilities, a method for providing selective distribution of specified signals to miniature fiber nodes in said network, said method comprising the steps of:

5 splitting an incoming optical signal into a given number of outputs, said outputs including said specified signals;

 receiving said specified ~~communication~~ signals on individual communication paths at on or more cross-connect devices;

 respectively coupling inputs of one or more optical multiplexer units to selected
10 outputs of said cross-connect devices,

dynamically controlling said cross-connect devices and said optical multiplexer units to selectively distribute said communication signals to inputs of said optical multiplexing units for targeted distribution to said miniature fiber nodes, ~~and~~

~~further including the step of power splitting an incoming optical signal into a~~
15 ~~given number of outputs prior to being input to said cross-connect devices~~

~~wherein said optical network is a WDM network, further including the step of demultiplexing the power split signals prior to being input to said cross-connect devices.~~

22. (Original) The method of Claim 21, wherein said specified communication signals are contained on various optical wavelengths, one or more selected wavelengths being representative of a target service for said target recipients.

23. (Original) The method of Claim 21 wherein a controller couples to cross-connect devices and said optical multiplexers, said controller being operable to track connections and signal distribution of said cross-connect devices and said optical multiplexer units to thereby determine usage of said specified communications signal
5 by targeted recipients coupled to said miniature fiber node.

24. (Cancelled)

25. (Cancelled)

Please add the following new claims:

26. (New) The apparatus of Claim 1,-wherein said optical network is a WDM network, further including one or more optical demultiplexing units respectively coupled between said power splitter and said cross-connect devices.

27 (New) The apparatus of Claim 13, wherein said optical network is a WDM network, further including one or more optical demultiplexing units respectively coupled between said power splitter and said cross-connect devices.

28 (New) The method of Claim 21, wherein said optical network is a WDM network, further including the step of demultiplexing the power split signals prior to being input to said cross-connect devices.